

Abstract

The purpose of this study was to ascertain teachers' multicultural knowledge, cross-cultural perceptions, and attitudes about different cultures as a function of both pre-service professional preparation and graduate education curriculum. Accomplishing this goal required administration of the Multicultural/Diversity Scale-Revised (MCR) at pre/post points. Data were collected from 90 pre-service and 90 in-service teachers. Inquirers used a quantitative descriptive statistical design to analyze these data. Reliability was computed on the instrument which indicated a .90 index. The data collected in this study indicated a significant difference among pre-service students in the category of Acceptance for pre-test data; however, no significant difference emerged in this category for posttest data. Inquirers surmised the difference was not present in posttest data due to the instruction administered during the course between pre-test and posttest data collection.

Multicultural and Diversity Issues: Pre-Service and In-Service Teachers' Attitudes and Knowledge

Exclusion, hatred, and injustice have caused much pain in our society. As a result, numerous scholars and researchers are exploring the complex, multidisciplinary, and often-controversial field of multicultural education. Educators such as James Banks (2003), Sonia Nieto (2002), Christine Bennett (2003), Gary Shank (2002), and Joel Spring (2001, 2004) are asking questions that have been thought of many times but left unasked and thus unanswered for many years. Conversation is encouraged regarding culture, class, ethnicity and race, equality and social justice, prejudice, discrimination, gender, exceptionality, language diversity, religion, and other issues impacting twentieth century classrooms and lives of twentieth century students and teachers within those classrooms. Teachers and students alike are expanding monocultural views of history and everyday happenings including an increase in awareness with regard to heretofore-unconscious prejudices. As pointed out by Anna Deavere Smith in her introduction to *Twilight: Los Angeles, 1992* (1994), "Few people speak of a language about race that is not their own. If more of us could actually speak from another point of view, like speaking another language, we could accelerate the flow of ideas."

Teacher educators are faced with a formidable challenge as they strive to present equality of opportunity through education to students. In order to meet the needs of a diverse student population, teachers must be able to recognize, understand, and celebrate differences. Incorporating the elements of action research, the goal of this study was to ascertain (for undergraduate pre-service teacher education students and graduate teacher education graduates that are practicing teachers) changes in their multicultural knowledge, cross-cultural perceptions, and attitudes about different cultures as a function of both their pre-service professional preparation and graduate education curriculum. Accomplishing this goal required the multiple administration of the Multicultural/Diversity Scale-Revised (MCR)

(Ambrosio, 1998; 2001) at pre/post points during the undergraduate classes and at pre/post points during the graduate program classes.

Specifically, attitudinal instruments were administered to 3 undergraduate (pre-service) and 3 graduate (post-service) education classes of students at entry to their pre-service/post-service classes and finally at the end of these classes. The survey responses were compared as to pre-service and graduate classes start scores with respective classes' end scores and scores of pre-service classes with graduate classes' start and end responses.

The data from these instruments were entered into a computer database enabling a variety of both multivariate and univariate repeated measures analyses of variance statistical analyses as a function of time as well as of any individual classes and status groups. In addition, the data can be explored either in the aggregate or desegregated into sub-clusters (e.g., analyzing only the responses from pre-service or post-service specific classes).

The overarching purpose of this study was to assess students' attitudes and knowledge regarding multicultural issues. The research study attempted to answer the following more specific research questions:

1. Is there a significant difference between graduate and undergraduate students with regard to attitudes toward multicultural/diversity issues prior to taking courses in a teacher education program?
2. Is there a significant difference between graduate and undergraduate students with regard to attitudes toward multicultural/diversity issues after completing courses in the teacher education program?
3. Is there a significant difference within the "undergraduate" status group between the specific classes of undergraduate students with regard to attitudes toward multicultural/diversity issues prior to taking courses and after completing these courses?
4. Is there a significant difference within the "graduate" status group between the specific classes of graduate students with regard to attitudes toward multicultural/diversity issues prior to taking courses and after completing these courses?

5. What is the effect of the specific undergraduate courses and graduate courses that students were enrolled in at the time of this study on their pre/post scores (Appreciation, Acceptance, and Social Action factors) with regard to multicultural/diversity issues?

To answer these questions, the researcher selected six (three undergraduate and three graduate) courses from which to collect data. The students in these six classes were enrolled during the Fall 2004 Semester either in undergraduate teacher preparation courses or graduate level Master's courses. The students enrolled in the undergraduate teacher preparation courses were preparing to meet State requirements for licensure. The graduate level students were practicing in-service teachers enrolled in graduate courses to fulfill requirements for a Master's degree in either administration/supervision or curriculum and instruction.

Data were collected from a 30-item survey that was administered to approximately 104 students. Each student was administered the test at the beginning of the semester (pre-test) and at the end of the semester (posttest). The survey instrument was designed by a research team at Emporia State University and had previously been tested and reported a reliability of .81 (Ambrosio, 1998; 2001). Using pre-test scores, our data showed that the Chronbach alpha reliability index was computed as a .90 index. Our reliability was better because several weak items were deleted. Factor analysis was used to divide the pre-test questions into three underlying dimensions/factors (Appreciation, Acceptance, and Social Action) in order to assess students' attitudes and knowledge regarding multicultural/diversity issues.

Definitions for Three Factors (Banks, 2003):

Appreciation: The act of appreciating, grateful or favorable recognition, sensitive awareness or enjoyment, involves a positive judgment or evaluation.

Acceptance: The act of accepting or being accepted, approving, acceptability, belief in, involves a personal commitment as to truthfulness and value.

Social Action: The act of acting upon one's beliefs based on appreciation and acceptance.

Statistical tests were performed on the undergraduate and graduate pre-test scores and posttest scores separately to search for specific differences relating to multicultural/diversity issues among students in the pre-service teaching status group (undergraduate) and those in the in-service (graduate) status group in order to answer specific questions relating to both student's attitudes and the effectiveness of the teacher education program regarding preparation of students for responding to cultural diversity in the public school classroom.

Question 1: Is there a significant difference between graduate and undergraduate students with regard to attitudes toward multicultural/diversity issues prior to taking courses in the teacher education program?

Performance on a multicultural survey was analyzed using a 2 (Status) on 3 (Attitudinal Factors) multivariate analysis of variance (MANOVA) to determine whether there were significant differences in mean scores prior to start of classes during the Fall 2004 Semester. The MANOVA showed that there was a lack of multivariate significant difference between undergraduate and graduate students on the three attitude competency factors simultaneously with Wilks' Lambda = .929, $F(3, 101) = 2.588$, $p = .057$. The additional analysis revealed that there was a statistical significant difference between undergraduate and graduate students in the Acceptance factor $F(1, 103) = 6.915$, $p = .010$. There was no significant difference in performance between undergraduate and graduate students in the factors of Social Action $F(1,$

103) $\leq .387$, $p \geq .535$ and Appreciation, $F(1, 103) \leq 3.84$, $p \leq .053$. See Table 1 for complete analysis between undergraduate and graduate students in the three factors. See undergraduate and graduate Mean scores that are presented in Table 2.

Table 1:

2X3 (Status) X (Factors) Analysis of Variance of Undergraduate and Graduate Students Pre-Test Scores

Attitudinal Factors	df	F	η	P
Social Action	1	.40	.004	.54
Appreciation	1	3.84	.036	.053
Acceptance	1	6.92	.063	.010*
Error	103			

Note: * significant at $p \leq .05$ level

Table 2:

Pre-Test Mean Scores of Undergraduate and Graduate Students in Three Attitudinal Factors.

Attitudinal Factors	Status	M	SD	N
Social Action	Undergraduate	2.16	.59	59
	Graduate	2.08	.68	46
Appreciation	Undergraduate	2.20	.43	59
	Graduate	2.02	.47	46
Acceptance	Undergraduate	2.08	.43	59
	Graduate	1.86	.42	46

While no significant difference emerged between undergraduate and graduate status in Social Action and Appreciation, an inspection of pre-test scores showed that the undergraduate

mean scores were higher in all three categorical factors than the scores of the graduate students. Higher scores indicated that the undergraduate students were skewed toward a negative scale (more negative than positive attitude) in their attitude toward multicultural and/or diversity issues. See Table 2.

For each of the three factors (Social Action, Appreciation, and Acceptance) a Tukey HSD test was performed on the pre-test scores of each particular class in order to determine the exactness of the significant difference among the undergraduate and graduate students. These analyses revealed that the significant difference existed between the two foundation (FOED 2110) undergraduate classes and two of the graduate (FOED 6850, FOED 6610) classes. Analyses did not reveal any interaction differences between the other classes (YOED 3050, FOED 6020). This significance indicated that undergraduate students in these foundation classes (FOED 2110, pre-service teachers) had not developed as positive an attitude toward multicultural issues when compared with the graduate students (in-service teachers) in a Cultural Issues course (FOED 6850) and Research class (FOED 6610) as measured by these pre-test scores.

Question 2. Is there a significant difference between graduate and undergraduate students with regard to attitudes toward multicultural/diversity issues after completing courses in the teacher education program?

A 2 (Status) on 3 (Attitudinal Factors) multivariate analysis of variance (MANOVA) was used to determine whether there were significant differences in mean scores at the end of the Fall 2004 Semester with regard to students' attitudes toward multicultural/diversity issues. See complete analysis in Table 3. The analysis revealed that there were no statistical significant differences between undergraduate and graduate students in any of the three attitudinal factors, $F(1, 102) \leq 2.29, p \geq .133$. Based upon these findings, overall undergraduate students' attitudes

have shifted toward a more positive or acceptance level with regard to multicultural/diversity issues since the initial significant difference present in pre-test score analysis in the factor of Acceptance did not emerge in the post test analysis of data. See Mean scores in Table 4.

Table 3:

2 X 3 (Status) X (Factors) Analysis of Variance of Posttest Scores

Attitudinal Factors	df	F	η	P
Social Action	1	.964	.009	.33
Appreciation	1	2.29	.022	.13
Acceptance	1	2.25	.022	.13
Error	102	2.59		

Note: p is significant at the .05 level

Table 4:

Mean Scores on Posttest of Undergraduate and Graduate Students in three Factors

Attitudinal Factors	Status	M	SD	N
Social Action	Undergraduate	2.24	.61	59
	Graduate	2.12	.54	45
Appreciation	Undergraduate	2.11	.47	59
	Graduate	1.97	.44	45
Acceptance	Undergraduate	2.03	.44	59
	Graduate	1.90	.44	45

Question 3. Is there a significant difference within the “undergraduate” status group between the specific classes of undergraduate students with regard to attitudes toward multicultural/diversity issues prior to taking courses and after completing these courses?

As previously reported, multivariate tests were preformed on the pre-post scores for both

status (graduate and undergraduate) groups. When the undergraduate students pre-post test scores were analyzed separately, no significant differences were found among these students in any of the three attitudinal factors, Wilks' Lambda = .97, $F(3, 114) = 1.09$, $p \geq .35$. Therefore, based on these samples, there exists no significant difference among undergraduate students' attitudes and knowledge toward multicultural/diversity issues.

Question 4: Is there a significant difference within the "graduate" status group between the specific classes of graduate students with regard to attitudes toward multicultural/diversity issues prior to taking courses and after completing these courses?

As reported, Tukey HSD tests were performed on the initial analyses of the combined pre-post test scores for both graduate and undergraduate status groups. No differences were found among the graduate students. A separate test was performed on the graduate students' pre-post results only to determine if differences exist within these students. The results of these tests indicated no significant differences exist within in any of the three attitudinal factors, Wilks' Lambda = .981, $F(3, 87) = .567$, $p \geq .63$. Therefore, based on these samples, there exists no significant differences among graduate students' attitudes and knowledge toward multicultural/diversity issues as measured by the Multicultural Questionnaire administered to this sample.

Question 5: What is the effect of the specific undergraduate courses and graduate courses that students were enrolled in at the time of this study on their pre/post attitudes as measured by respective pre-test and posttest scores toward multicultural/diversity issues?

Analyses of the pre-test data indicated that a significant difference did exist between the undergraduate students in the category of Acceptance. However, inquirers were unable to determine which specific classes within the undergraduate status group skewed the results

toward significance for pre-test results. Posttest data showed no significant difference within the Acceptance category; therefore, it is hypothesized that undergraduate students moved from a less favorable Acceptance level with regard to multicultural diversity issues to a more favorable level of Acceptance. See Tables 2 and 5.

Analyses of pre-test data for the graduate status group indicated no significant difference existed between the graduate students in the categorical factors of Acceptance, Appreciation, or Social Action. Analyses on posttest data indicated similar results for this status group. See Tables 2 and 5.

With regard to pre-test data, although data indicated near significance for the two status groups within the categorical factor of Appreciation, the only significant difference that emerged for status groups was in the categorical factor of Acceptance. With regard to posttest data, no significant difference emerged between the status groups with regard to any of the three factors. This in itself emerges as significant since it indicates that undergraduates moved in a more favorable direction with regard to the category of Acceptance as indicated by posttest data scores. Furthermore, inquirers find it favorable to assume that the difference emerging between the pre-test and posttest scores on the pre-test was eliminated due to the exposure of the pre-service students to multicultural/diversity issues embedded in the Teacher Education program courses. See Tables 2 and 5.

Table 5:

Mean Post-test Scores for Three Undergraduate and Three Graduate Classes

Category	Status	M	SD	N
Social Action	Undergraduate (3050)	2.29	.48	15
	Undergraduate (2110)*	2.23	.65	44
	Graduate (6020)	2.03	.50	14
	Graduate (6850)	2.07	.46	12
	Graduate (6610)	2.23	.62	19
Appreciation	Undergraduate (3050)	2.00	.45	15
	Undergraduate (2110)	2.15	.47	44
	Graduate (6020)	2.00	.43	14
	Graduate (6850)	1.83	.50	12
	Graduate (6610)	2.05	.41	19
Acceptance	Undergraduate (3050)	1.93	.52	15
	Undergraduate (2110)	2.06	.41	44
	Graduate (6020)	1.82	.51	14
	Graduate (6850)	1.82	.46	12
	Graduate (6610)	1.99	.37	19

Sonia Nieto (*Affirming Diversity*, 2004) once wrote, “Multicultural education cannot be understood in a vacuum. Yet in many schools it is approached as if it were divorced from the policies and practices of schools and from society.” If our teachers are to meet the needs of our pluralistic student population, teachers must be able to recognize, understand, and celebrate differences. In addition they must design curriculum that infuses multicultural core values and goals (Banks, 2002; Bennett, 1999). Findings from the study were utilized to inform and/or improve current practices within the classrooms of the participants and to assist them in better meeting the needs of their own diverse student populations, and also to inform and/or improve current practices within the education courses itself.

References

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